ERA-HELICOPTERS, INC.
GULF COAST DIVISION
LAKE CHARLES, LOUISIANA

PROCESS SPECIFICATION

PROCESS SPECIFICATION NUMBER: ERA-1001

412 Auxiliary Fuel Tanks

FABRICATION OF THE PRIMARY SHELL AND CLOSURE PANEL

PREPARED BY: John E. Stanley DATE: 1/22/87
John E. Stanley
MESH PLASTICS LTD.

APPROVALS

MANUFACTURING	QUALITY CONTROL	ENGINEERING	
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ERA HELICOPTERS, INC.
GULF COAST DIVISION
LAKE CHARLES, LOUISIANA

PROCESS SPECIFICATION

Scope: This specification outlines the requirements for fabricating the primary shell and closure panel for the 412 Auxiliary Fuel Tanks.

Conformation: This specification does not conform to any existing government specification.

Subcontractors: MESH PLASTICS, LTD. of Lake Charles, Louisiana, or its subcontractor shall be the only subcontractors qualified to construct the FRP requirements and shall comply with this process specification. Any deviations or variations are to be submitted to ERA for approval with proper documentation prior to fabrication.

Conflicts: In the event of a conflict with engineering drawing(s) and this specification, the drawing(s) shall govern.

Fabrication of the Primary Shell and Closure Panel for the 412 Auxiliary Fuel Tanks

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Rev	Date	Pages	Approvals					
			Manufacturing		Quality Control		Engineering	
			MESH	ERA	MESH	ERA	MESH	ERA
IR	1/22/87	ALL						

MATERIALS

MATERIAL	NAME	MANUFACTURER
Resin	Derakane 8084	Dow Chemical Midland, MI
	Derakane 470-36	Dow Chemical Midland, MI
Promoter	Cobalt Napthenate	AKZO Chemie New Brunswick, NJ
Accelerator	Dimethylaniline	Buffalo Colors West Paterson, NJ
MEKP Catalyst	Hi Point 90	Witco Chemical Richmond, CA
	Lupersol DHD 9	Lucidol Chemical Buffalo, NY
Mold Release	PVA	Rexco Carpenteria, CA
	Cerea Mold Release Wax	Ceara Products,Inc. Denver, CO
UV Inhibitor	UV-9	Industrial Chemicals Atlanta, GA
Pigment	CoPlas pigment	CoPlas Fort Smith, AR
	Spartan pigment	Spartan Pigments Houston, TX

MATERIALS

MATERIAL	NAME	MANUFACTURER
Putty filler (Amorphous Fumed Silica)	Aerosil	Dequssa Corp. Teterboro, NJ
	Cabosil	Cabot Corp. Boston, Ma.
Milled Fibers	731 ED	Owens-Corning Anderson, S.C.
3/4 oz Type 'E' glass mat	M113 - 3/4 oz.	Certainteed Wichita Falls, TX
1-1/2 oz Type 'E' glass mat	Compatamat - 1-1/2 oz.	PPG Industries Shelby, NC
	M113 - 1-1/2 oz.	Certainteed Wichita Falls, TX
Kevlar Woven Roving	K 49/051	Knytex Seguin, TX
	285-F100	Hexcel Chicago, IL
8.9 oz. Type "ECDE" glass	7781	Burlington Fibers Altavista, VA
10 mil 'C' glass, or	Modiglass	Reichold Chemical Bremen, OH
	Manville Glass	Manville Corp. Denver, CO
10 mil 'A' glass veil	Surglass	Superior Glass Bremen, OH

Kevlar is a registered Trademark of E.I. Dupont & de Nemours & Co.

DATE	ENGINEERING ORDER	E.O. No.	SHT.
6/26/95		A-1	1 OF 1
BY: T. Harvills	TITLE: PROCESS SPECIFICATION	DWG. AFFECTED: 1001	
APPROVED BY: T. Edwards		ENTERED ON COMPUTER BY: DATE:	

REASON FOR CHANGE: ADD ALT P/N FOR 3/4 & 1 1/2 oz TYPE "E" GLASS MAT (M127)

3/4 oz TYPE "E" GLASS MAT.	M113-3/4 oz	CERTAINTEED WICHITA FALLS, TX.
	OR	
	M127-3/4 oz	CERTAINTEED WICHITA FALLS, TX.
1 1/2 oz TYPE "E" GLASS MAT.	M113-1 1/2 oz	CERTAINTEED WICHITA FALLS, TX.
	OR	
	M127-1 1/2 oz	CERTAINTEED WICHITA FALLS, TX.

MATERIALS

MATERIAL	NAME	MANUFACTURER
Paraffinated Styrene	TF-100	Industrial Chemicals Atlanta, GA
Grinding Discs	36 Grit Type D 60 Grit Type C 80 Grit Type C	3M Corp. St. Paul, MN
Mold surface	Black Tooling Gel	Glidden
Gel coat	Gel Coat	CoPlas Fort Smith, AR

Laminate Manufacture

1) Inspect mold for defects (ie. chips, cracks, crazing, etc. ...). DO Not proceed until any defect is corrected.

2) Apply mold release agent(s) according to manufacturer's instructions.

3) Apply gel-coat containing UV inhibitor onto mold using a spray gun for a nominal thickness of 10 mils.

4) Allow gel-coat to cure for 4 - 6 hours and become tack free.

5) Apply one layer of 3/4 oz. chopped strand mat on mold surfaces. Saturate with Derakane 8084 resin containing UV inhibitor and pigment. Deaerate with serrated rollers.

NOTE: Steps # 6 through 20 apply only to the primary shell.

6) Assemble mold sections securely before resin gels.

7) Apply one layer of 3" wide 3/4 oz. chopped strand mat at the seams. Saturate with Derakane 8084 resin containing UV inhibitor and pigment. Deaerate with serrated rollers.

8) Apply one layer of Kevlar woven roving over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers and plastic squeegees.

9) Apply second layer of 3/4 oz. chopped strand mat over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers.

10) Apply second layer of Kevlar woven roving over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers and plastic squeegees.

11) Apply third layer of 3/4 oz. chopped strand mat over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers.

12) Apply third layer of Kevlar woven roving over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers and plastic squeegees.

Laminate Manufacture

13) Apply fourth layer of 3/4 oz. chopped strand mat over entire mold surface. Saturate with Derakane 8084 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers.

14) Allow laminate to exotherm and cool down.

15) Measure the laminate at the control points located on the mold to assure a minimum thickness of 0.110" and a nominal thickness of 0.115".

16) Apply one layer of 1-1/2 oz. chopped strand mat over entire mold surface. Saturate with Derakane 470-36 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers.

17) Apply one layer of 10 mil glass veil over entire mold surface. Saturate with Derakane 470-36 resin containing UV inhibitor (NO pigment). Deaerate with serrated rollers. Deaerate with serrated rollers.

NOTE: All internal non mold side surfaces will receive a "wax" coat of Derakane 470-36 resin after all baffles and other internals have been installed.

18) Allow laminate to exotherm and cure for a minimum of 12 hours.

19) Trim excess laminate which protrudes from the mold.

20) Separate the fabricated part from the mold.

Note: Steps 21 through 47 apply only to the closure panel.

21) Apply one layer of 3/4 oz. mat on the entire surface. Saturate with Derakane 470-36 resin containing UV inhibitor and pigment. Deaerate with serrated rollers.

22) Apply one layer of ECDE glass over the entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers and plastic squeegees.

23) Apply second layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with

Laminate Manufacture

24) Apply second layer of ECDE glass over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers and plastic squeegees.

25) Apply third layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

26) Apply 10 mil glass veil over stiffener areas only. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers. Allow to exotherm and cool down.

27) Apply hot wax coat over glass veil in stiffener area only using 470-36 resin containing UV inhibitor and parrafinated styrene.

28) Place stiffeners on closure in exact location the are to be mounted. (excluding Part 41228-202-002-007 and Part 41228-202-002-011) Using a pencil or a scribe, mark around the outside of the stiffeners, then remove stiffeners. Using 36 grit type D discs, sand away any wax surfaces that protrude outside of the lines.

29) Place stiffeners back in positon on closure and using a mimimal amount of putty, tack stiffeners in place. Allow to cure until putty hardens.

30) Apply fourth layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

31) Apply third layer of ECDE glass over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers and plastic squeegees.

32) Apply fifth layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

33) Apply fourth layer of ECDE glass over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers and plastic squeegees.

34) Apply sixth layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

Laminate Manufacture

35) Apply fifth layer of ECDE glass over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers and plastic squeegees.

36) Apply seventh layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

37) Apply eighth layer of 3/4 oz. mat over entire surface. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

38) Apply one layer of 10 mil glass veil over entire surface. Saturate with Derakane 470-36 resin containing UV inhibitor (no pigment). Allow to exotherm and cool down.

39) Trim and dress up excess laminate which protrudes over the edges of the stiffeners.

40) Place the remaining stiffeners (Part 41228-202-002-007 and Part 41228-202-002-011) in proper position on closure and tack in place with a minimal amount of putty. Allow to cure until putty hardens.

41) Apply one layer of 1-1/2 oz. mat on stiffeners making sure mat covers the entire outside of stiffeners and approx. 1-1/2" onto surrounding areas. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

42) Repeat step 41 three additional times.

43) Apply one layer of 10 mil glass veil over wet surfaces, making sure all exposed mat surfaces are covered. Saturate with 470-36 resin containing UV inhibitor (no pigment). Deaerate with serrated rollers.

44) Allow laminate to exotherm and cure for a minimum of 12 hours.

NOTE: All internal non mold side surfaces will receive a wax coat of 470-36 resin after all access holes have been cut.

45) Trim excess laminate which protrudes from the mold.

46) Measure the laminate at the control points located on the mold to verify a minimum thickness of 0.20".

Laminate Manufacture

46) Separate the fabricated part from the mold.

Edge Sealing: Cut edges which will remain exposed (ie, the trimmed edges of the parts) should be sealed. Minimum requirement is coating with paraffinated lay-up resin.

Final Fit-Up: The pieces to be joined should be assembled with proper alignment and secured in position with jigs or "hot patches".

INSPECTION

It is the purpose of the inspection to verify that each part has been fabricated in accordance with and meets the requirements of this specification.

RESPONSIBILITIES: It is the responsibility of the fabricator to make available to ERA Helicopter or his authorized representative any or all of the following:

Records: Records pertaining to the part(s) being purchased shall be supplied when requested. These may include:

- Materials specifications
- Equipment drawings or mold jig
- Materials test results.
- Dimensional verification reports.
- Rework and repair reports.

MATERIALS:

Raw materials used for laminates shall be virgin materials and shall be free of contaminants as described on pgs. 14, 15, 16, 17, 18, 19, 20 and 21.

FABRICATED PARTS: The part to be inspected shall be properly located and positioned, and shall be in condition to permit safe and thorough inspection. Reasonable means shall be provided to permit the inspector to visually examine the entire inner and outer surfaces of the part.

Allowable defects are listed on pgs. 12 and 13.

The following inspection tools and equipment shall be made available for use by the inspector.

- Barcol hardness tester.
- Acetone squeeze bottle with acetone.
- Extension cord with ground fault switch.
- A vapor tight inspection light.
- Thickness gauge.

INSPECTION

TEST OF FINISHED PARTS:

The following basic tests shall be included as a minimum in the Acceptance Inspection.

Barcol Hardness Test - A test of resin cure shall be made in accordance with ASTM D2583. Take 10 readings, discard highest and lowest, average the remaining readings. Minimum acceptable average reading is 30.

Surface Cure Test - An acetone test shall be used to detect surface inhibition on surfaces exposed to air during cure. The procedure that shall be used is the following: rub a few drops of acetone on the surface and check for tackiness after the acetone has evaporated. Persistent tackiness indicates incomplete cure.

Dimensions - The inspector shall be provided with copies of all approved drawings or mold jigs.

OTHER APPLICABLE DOCUMENTS:

ASTM Standards

C 581-74-Test Method for Chemical Resistance of Thermosetting Resins Used in Glass Fiber Reinforced Structures.

D 638-77a-Test method for Tensile Properties of Plastics.

D 790-71-Test Methods for Flexural Properties of Plastics and Electrical Insulating Materials.

D 883-78a-Definitions of Terms Relating to Plastics.

D 2583-75-Test Method for Identation Hardness of Rigid Plastics by Means of a Barcol Impressor.

ALLOWABLE DEFECTS

Defect	Surface inspected
Cracks(through part)	None
Crazing (fine surface cracks)	Max dimension 1/2 in., max density 5 per sq. ft. min 2 in apart
Blisters(rounded elevations of the laminate surface over bubbles)	Max 1/4 in., dia x 1/8 in. high, max 1 per sq ft, min 2 in apart
Wrinkles and solid blisters	Max deviation, 20% of wall thickness but not exceeding 1/8 in.
Pits(craters in the laminate surface)	Max dimensions, 1/8 in dia x 1/16 in deep, max density 10 per sq. ft.
Surface porosity(pin-holes or pores in the laminate)	Max dimensions, 1/16 in dia. x 1/16 in deep, max density 10 per sq. ft.
Chips	Max dimension of break, 1/4 in, and thickness no greater than 20 percent of wall thickness, max density 1 per sq ft
Dry spot(nonwetted reinforcing)	Max dimension, 2 sq in. per sq ft
Entrapped air (bubbles or voids in the laminate)	1/8 in. max dia, 4 per sq in. max density; 1/16 in. max dia. 10 per sq in. max density

ALLOWABLE DEFECTS

Defect	Surface inspected
Exposed Glass	None
Burned Areas	None
Exposure of cut edges	None
Scratches	Max length 1 in. max depth 0.010 in.
Foreign Matter	1/16 in.dia, max density 1 per sq ft

FIBERGLASS SURFACING MAT

1.0 Scope

1.1 The scope of these procedures is to describe the visual, physical and mechanical parameters which characterize fiberglass surfacing mat used by the fabricator.

2.0 Definitions

2.1 Fiberglass Surfacing Mat - A random arrangement of glass fibers bonded with a binder to form a thin porous mat which is supplied in roll form. Surfacing mat is usually used to reinforce the corrosion resistant resin rich liner on the inside of equipment and to provide a smooth surface on the exterior of equipment.

2.2 Binder - Chemical treatment applied to the jackstraw arrangement of glass fibers to give the mat integrity. Specific binders are utilized to promote chemical compatibility with the various laminating resins used.

2.3 Slugs - Unfiberized beads of glass.

3.0 Requirements

3.1 Visual Requirements - Each roll of fiberglass surfacing mat shall be inspected to insure it is consistent in color, texture and appearance. Any holes, cuts or visual irregularities shall be removed from the mat prior to or during fabrication.

3.1.1 Slugs - Mat which contains more than four slugs per 100 lineal feet is rejectable.

3.1.2 Wrinkles - Crosswise wrinkles or waves that are visible at a 45 deg. angle and lengthwise wrinkles that can be readily flattened under pressure and that do not crease or change the dimensions of the mat are acceptable.

3.1.3 Wet Spots and Bar Marks - The mat shall be free from these defects.

3.1.4 Delamination - The mat shall not delaminate, i.e. shall not separate into layers in coming off the roll.

FIBERGLASS SURFACING MAT

3.2 Physical Properties

3.2.1 Thickness - The thickness of the mat in each roll shall be measured.

3.3 Packaging Requirement - Packaging shall be visually inspected to assure proper labeling and that the package is free from damage that may render the mat unusable.

3.3.1 The mat shall be packaged in an unbroken carton as shipped from the mat manufacturer's factory. The mat used shall not be repackaged in the distribution of the mat after the manufacturer has shipped the mat.

3.4 Documentation - It is the responsibility of the fabricator to maintain records showing the results of all material testing. This information shall show at a minimum, the following:

(a) Form of material
(b) Manufacturer
(c) Manufacturer's product description including binder type (treatment)
(d) Manufacturer's product code
(e) Production date, if available, or production code on carton.
(f) Property measured and value recorded

* Visual inspection
* Width
* Thickness
* Packaging

(g) Job number (Internal Fabricator Control Number)

(h) Fabricated part identification number

FIBERGLASS CHOPPED STRAND MAT

1.0 Scope

1.1 The scope of these procedures is to describe the visual, physical and mechanical parameters which characterize fiberglass chopped strand mat used by the fabricator.

2.0 Definitions

2.1 Chopped Strand Mat - Chopped strand mat is made from randomly oriented glass strands which are held together in mat form using a binder. Each strand contains a sizing.

3.0 Requirements

3.1 Visual Requirements - Each roll of chopped strand mat shall be inspected to insure it is consistent in color, texture and appearance. It shall be free from surface irregularities, fluffy masses, dirt spots or other foreign material; water spots, knots, binder spots larger than 2" in diameter, clumps of strands and tears of holes which may result form removal of defects.

3.2 Physical Requirements

3.2.1 Weight - The square foot weight of the mat shall be measured for each carton of mat used. All specimens shall fall within the range specified for the product.

3.3 Packaging Requirement - Packaging shall be visually inspected to assure proper labeling and that the package is free from damage that may render the mat unusable.

3.3.1 The mat shall be packaged in an unbroken carton as shipped from the mat manufacturer's factory. The mat used shall not be repackaged in the distribution of the mat after the manufacturer has shipped the mat.

FIBERGLASS CHOPPED STRAND MAT

3.4 Documentation - It is the responsibility of the fabricator to maintain records showing the results of all material testing. This information shall show at a minimum, the following:

(a) Form of material
(b) Manufacturer
(c) Manufacturer's product description including binder type (treatment)
(d) Manufacturer's product code
(e) Production date, if available, or production code on carton.
(f) Property measured and value recorded

* Visual inspection
* Width
* Thickness
* Packaging

(g) Job number (Internal Fabricator Control Number)

(h) Fabricated part identification number

FIBERGLASS WOVEN ROVING

1.0 Scope

1.1 The scope of these procedures is to describe the visual, physical and mechanical parameters which characterize woven roving used by the fabricator.

2.0 Definitions

2.1 Fiberglass Woven Roving - Glass fiber rovings woven into a heavy weight fabric.

2.2 Wrap Ends - The rovings which run in the longitudinal direction of the fabric, i.e., along the roll length of the fabric.

2.3 Fill Picks - The rovings which run in the transverse direction of the fabric, i.e., across the roll length of the fabric.

2.4 Leno Strands - A pair of warp ends at each edge of the woven fabric. One Leno warp end is always over each fill pick while the other Leno warp end is always under the fill pick. The Leno strands define the edges of the woven field and serve to stabilize the edges of the fabric.

3.0 Requirements

3.1 Visual Requirements

3.1.1 Dirt Spots - Defined as all foreigh matter, dirt, grease spots, etc. - The average number of dirt spots (1/16" to 3/4" in diameter) per 100 lineal feet shall be 6 or less. All rolls shall be free of dirt spots in excess of 3/4" diameter.

3.1.2 Warp Ends - All rolls shall be free of missing warp ends for more than two consecutive feet.

3.1.3 Fill Picks - All rolls shall be free of consecutive missing picks in excess of five, or more than eleven missing picks, either individual picks or any combination of individual and multiple (2, 3, 4, or 5) picks, in any consecutive 100 lineal feet.

3.1.4 Fuzz Clumps and Loops - The product is designed to exhibit proper laydown and shall be free of fuzz clumps or loops exceeding one inch in height from the surface.

FIBERGLASS WOVEN ROVING

3.2 Physical Properties

3.2.1 Thickness - The thickness of the mat in each roll of woven roving shall be measured.

3.3 Packaging Requirement - Packaging shall be visually inspected to assure proper labeling and that the package is free from damage that may render the woven roving unusable.

3.3.1 The woven roving shall be packaged in an unbroken carton as shipped from the manufacturer's factory. The woven roving used shall not be repackaged in the distribution of the woven roving after the manufacturer has shipped the woven roving.

3.4 Documentation - It is the responsibility of the fabricator to maintain records showing the results of all material testing. This information shall show at a minimum, the following:

(a) Form of material
(b) Manufacturer
(c) Manufacturer's product description including binder type (treatment)
(d) Manufacturer's product code
(e) Production date, if available, or production code on carton.
(f) Property measured and value recorded

* Visual inspection
* Width
* Thickness
* Packaging

(g) Job number (Internal Fabricator Control Number)

(h) Fabricated part identification number

KEVLAR WOVEN ROVING

1.0 Scope

1.1 The scope of these procedures is to describe the visual, physical and mechanical parameters which characterize kevlar woven roving used by the fabricator.

2.0 Definitions

2.1 Kevlar Woven Roving - Kevlar fiber rovings woven into a heavy weight fabric.

2.2 Wrap Ends - The rovings which run in the longitudinal direction of the fabric, i.e., along the roll length of the fabric.

2.3 Fill Picks - The rovings which run in the transverse direction of the fabric, i.e., across the roll length of the fabric.

2.4 Leno Strands - A pair of warp ends at each edge of the woven fabric. One Leno warp end is always over each fill pick while the other Leno warp end is always under the fill pick. The Leno strands define the edges of the woven field and serve to stabilize the edges of the fabric.

3.0 Requirements

3.1 Visual Requirements

3.1.1 Dirt Spots - Defined as all foreign matter, dirt, grease spots, etc. - The average number of dirt spots (1/16" to 3/4" in diameter) per 100 lineal feet shall be 6 or less. All rolls shall be free of dirt spots in excess of 3/4" diameter.

3.1.2 Warp Ends - All rolls shall be free of missing warp ends for more than two consecutive feet.

3.1.3 Fill Picks - All rolls shall be free of consecutive missing picks in excess of five, or more than eleven missing picks, either individual picks or any combination of individual and multiple (2, 3, 4, or 5) picks, in any consecutive 100 lineal feet.

3.1.4 Fuzz Clumps and Loops - The product is designed to exhibit proper laydown and shall be free of fuzz clumps or loops exceeding one inch in height from the surface.

KEVLAR WOVEN ROVING

3.2 Physical Properties

3.2.1 Thickness - The thickness of the mat in each roll of kevlar woven roving shall be measured.

3.3 Packaging Requirement - Packaging shall be visually inspected to assure proper labeling and that the package is free from damage that may render the kevlar woven roving unusable.
3.3.1 The kevlar woven roving shall be packaged in an unbroken carton as shipped from the manufacturer's factory. The kevlar woven roving used shall not be repackaged in the distribution of the kevlar woven roving after the manufacturer has shipped the kevlar woven roving.

3.4 Documentation - It is the responsibility of the fabricator to maintain records showing the results of all material testing. This information shall show at a minimum, the following:

(a) Form of material
(b) Manufacturer
(c) Manufacturer's product description including binder type (treatment)
(d) Manufacturer's product code
(e) Production date, if available, or production code on carton.
(f) Property measured and value recorded

* Visual inspection
* Width
* Thickness
* Packaging

(g) Job number (Internal Fabricator Control Number)

(h) Fabricated part identification number